

< 0.05 level. **CONCLUSIONS:** The likelihood of refilling an SSRI varies by the specific SSRI and may vary by age, gender, and copayment amount. Patients are more likely to refill their prescriptions for sertraline or citalopram than for paroxetine.

PMH67**DEPRESSION DIAGNOSIS IN PRIMARY CARE VISITS NOT FOR MENTAL HEALTH REASONS**

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OBJECTIVE: To examine factors associated with diagnosis of depression at a primary care visit for reasons unrelated to depression. **METHODS:** We used the 1998–2000 National Ambulatory Medical Care Survey for office-based physician visits. We included visits to their primary care physician for patients with no indication of prior episodes of depression. We excluded patients under 15 years old and visits where the major reason for the visit was for mental health or social problems. We created a multivariate logistic regression model to examine which factors were associated with a depression diagnosis. Study variables included: age, race, sex, geographic region, urban setting, payment source, time spent with physician, new patient, HMO status, capitated visit, and major reason for the visit. **RESULTS:** There were 18,612 patients meeting study criteria, of whom 11,365 (61%) were female, 2,037 (11%) black, 1,940 (10%) were under age 25 and 5,629 (30%) were at least 65 years old. A total of 234 (1.5%) patients received a depression diagnosis. Multivariate analysis showed that younger (age 15–24; OR = 0.486, $p = 0.0177$) and older patients (age 65+; OR = 0.517, $p < 0.0001$) were less likely to receive a depression diagnosis. Factors associated with increased likelihood of depression diagnosis: female (OR = 1.81, $p < 0.0001$), self-pay (OR = 1.64, $p = 0.329$), and major reason for visit a chronic problem, both routine (OR = 2.24, $p < 0.0001$) and flareup (OR = 1.58, $p = 0.0349$). There were non-significant trends towards reduced rate of diagnosis in blacks (OR = 0.645, $p = 0.0811$) and visits related to surgery/injury (OR = 0.343, $p = .0620$), and towards higher rates in the West (OR = 1.38, $p = 0.0847$). There was no association between diagnosis of depression and urban setting, new patient, capitated visit, HMO enrollment. Association of time spent with the physician and depression diagnosis was marginal, though statistically significant. **CONCLUSIONS:** When seeing their primary care physician for reasons unrelated to mental health or social problems, patients who were age 25–64, female, self-pay or visiting for a chronic illness were substantially more likely to be diagnosed with depression.

PMH68**TRENDS IN PHARMACOLOGIC TREATMENT FOR PATIENTS WITH BIPOLAR: 1992–2002**

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OBJECTIVE: Assess trends in pharmacologic treatment for patients with bipolar disorder. **METHODS:** A large claims database of insured individuals from October 1992 to September 2002 was analyzed to identify patients diagnosed with bipolar disorder (ICD9-CM: 296.4x–296.8x). Treatment regimens were examined for six-classes of psychotropics (antidepressants, mood-stabilizers, atypical and typical antipsychotics, anxiolytics and hypnotics). **RESULTS:** Of 13,407 patients, the percent untreated remained stable around 10% over the 10-year period. Among treated patients, about 65% received mood stabilizers and/or antidepressants. The two agents most frequently used were valproate (39.7%) and olanzapine (24.2%) in 2002. Overall, mood stabilizers increased slightly from 59.5% to

64.2%, and atypical antipsychotics increased from 4.5% to 45.1% usage. Antidepressants and anxiolytics remained stable at around 65% and 50% respectively, although the products chosen shifted with new market introductions. Typical antipsychotics decreased from 34.5% to 12.4%, and hypnotics decreased from 13.2% to around 7% usage. **CONCLUSIONS:** Although about two-thirds of patients with bipolar illness receive mood stabilizers, there continues to be opportunity for improvement in pharmacotherapy. It is also important to understand outcomes associated with changing treatment patterns for bipolar patients.

PMH69**PATTERNS OF PHARMACOLOGIC TREATMENT FOR PATIENTS WITH BIPOLAR DISORDER**

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OBJECTIVE: Assess recent pharmacologic treatment patterns for patients with bipolar disorder. **METHODS:** A large claims database of insured individuals from October 1998 to September 2002 was analyzed to identify patients diagnosed with bipolar disorder (ICD9-CM: 296.4x–296.8x). Treatment regimens were examined for six-classes of psychotropics (antidepressants, mood-stabilizers, atypical and typical antipsychotics, anxiolytics and hypnotics) during the year post-diagnosis. Differences in medication use among sub-types of bipolar were compared. **RESULTS:** Of 6373 patients (56.4% female, mean age 49.2 years), 19.4% were depressed, 14.2% manic, 21.2% mixed, and 45.1% other episodes; 9.1% didn't receive psychotropic treatment. Among treated patients, 66.0% received antidepressants, 64.0% mood-stabilizers, 48.2% anxiolytics, and 42.1% atypical antipsychotics. Valproate (40.3%) and olanzapine (22.0%) were top two most commonly prescribed psychotropics. Only 22.7% received single-class therapy, 44.2% received ≥ 3 classes and 19.8% received ≥ 5 classes of psychotropics. Among depressed patients, 76.7% received antidepressants, 59.2% received mood-stabilizers and 39.9% received atypical antipsychotics versus 45.4%, 71.2% and 54.4% in manic patients, respectively. Surprisingly, 52.3% of depressed patients received anxiolytics—the highest percentage among all sub-types of bipolar patients. **CONCLUSIONS:** Pharmacotherapy for bipolar patients is complex. Nearly half of bipolar patients were treated with ≥ 3 classes of psychotropics. Depressed patients were more likely to receive antidepressants and anxiolytics but less likely to receive mood-stabilizers.

PMH70**PHARMACOLOGIC TREATMENT PATTERNS FOR BIPOLAR DISORDER**

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OBJECTIVE: To examine managed-care treatment patterns for patients diagnosed with bipolar disorder. **METHODS:** We examined the PharMetrics Integrated Outcomes Database of adjudicated medical and pharmaceutical claims for over 3 million patients from 11 U.S. health plans. We identified 4,455 bipolar patients based on the following criteria: two claims with ICD-9-CM diagnosis for bipolar disorder (296.0, 296.1, 296.4–296.8), age between 10 and 64, and 1 year of continuous eligibility prior to and following the initial bipolar diagnosis with claims beginning January 1, 1999. **RESULTS:** Of the 4455 bipolar patients, 80% (3555) received medication-based treatment in a 13-month window around the index diagnosis (12 months post and 1 month pre). A total of 38% of bipolar patients used 4 or more medications during the 13 months. On average each patient

underwent 3.6 distinct medication regimens with each, on average, having 2 drugs. Poly-pharmacy (multiple drug combination) treatments represent 60% of the days of treatment and a disproportionate 82% share of costs. Average paid cost per day of treatment for those using poly-pharmacy is \$7.56, whereas monotherapy is \$2.47. Twenty-three percent of patients are treated with poly-pharmacy initially and permanently. Antipsychotics and benzodiazepine-based treatments are most commonly seen (80%) in poly-pharmacy treatments. Increasing severity of illness is related to increased poly-pharmacy, with the exception of those patients in remission. **CONCLUSION:** Pharmacologic treatment of bipolar is challenging, individualized and characterized by poly-pharmacy, reflecting the cyclical nature of the disorder. The impact of the complexity of treating bipolar needs to be studied to determine how service utilization and costs are influenced.

PMH71

WHEN BIPOLAR DISORDER IS BEING IDENTIFIED: PHASE OF DISORDER, PROVIDER SPECIALTY, FACILITY TYPE, AND RESOURCE UTILIZATION SURROUNDING THE INITIAL BIPOLAR DIAGNOSIS IN CLINICAL PRACTICE

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OBJECTIVE: In part because of its cyclical nature, bipolar disorder is frequently missed or misdiagnosed in clinical practice. Over one third of bipolar patients report a period of 10+ years between initially seeking treatment and proper diagnosis. Understanding when and where bipolar disorder is being diagnosed represents an important step for targeting efforts to improve the accurate identification of bipolar patients. **METHODS:** To examine characteristics of initial bipolar diagnosis, the Pharmetrics Integrated Outcomes Database of adjudicated medical and pharmaceutical claims for over 3 million patients from 11 U.S. health plans was utilized. We identified 3,648 bipolar patients based on the following criteria: two claims with ICD-9-CM diagnosis for bipolar disorder (296.0, 296.1, 296.4–296.8) that were not accompanied by a unipolar depression or schizophrenia claim on the same day, age between 10 and 64, and 1 year of continuous eligibility prior to and following the initial bipolar diagnosis. **RESULTS:** Of the 3648 patients, 1859 (51%) had sufficient diagnostic information to identify the current phase of the disorder. Of these 1859 patients, 69% were diagnosed during either a manic or mixed episode. Most frequently the diagnostic claim was associated with a mental health specialist (64%), with only 7% being associated with a family or general practitioner. The majority of index diagnoses were at outpatient visits (75%), followed by inpatient hospitals (15%), and Emergency Rooms (2%). On average, patients incurred \$9241 in paid claims per year, of which \$2610 (28%) occurred in the 2 weeks before and after the bipolar index date. During this month surrounding initial diagnosis, hospitalizations accounted for 72% of the costs. **CONCLUSIONS:** Bipolar disorder appears to be most commonly diagnosed at outpatient visits by mental health specialists when symptoms of mania are present. Earlier recognition and treatment may reduce the spike in costs that surrounds the initial diagnosis.

PMH72

MEDICATION PRESCRIBING PATTERNS FOR PATIENTS WITH BIPOLAR DEPRESSION

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OBJECTIVE: To examine managed-care prescribing patterns for patients beginning pharmacologic treatment in the depressive phase of bipolar. **METHODS:** This retrospective study (1995–2002) included a cohort of 1203 patients who had 3 consecutive years of data, received an ICD coded diagnosis of bipolar depression and received one of four classes of psychotropic medication (i.e. antidepressant, antipsychotic, benzodiazepine, or mood stabilizer). Treatment patterns were observed for a one-year period post diagnosis. **RESULTS:** Seventy-seven percent of extracted data was between 1999–2002. Fifty-five different medications were used to create multiple unique mono and/or combination pharmacologic treatments. Nine percent of patients began their treatment in accordance with APA guidelines, whereas, 16% began treatment using only an antidepressant. As switches in treatment occur, use of mono-therapy treatments decrease (–12%) and use of four or more medication combinations increase (+9%). One third of patients were treated with four or more medications in combination, at some point, during the year following diagnosis. **CONCLUSION:** Pharmacologic treatment of bipolar depression is characterized by poly-pharmacy, reflecting the complexity of the disorder; and is often not aligned with guidelines. There is a need to study how these patterns impact service utilization and costs, as well as to further understand the treatment patterns.

MENTAL HEALTH

MENTAL HEALTH—Methods

PMH73

DEPRESSION IN THE GENERAL POPULATION AND AFTER STROKE: A PSYCHOMETRIC COMPARISON USING THE CES-D SCALE

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OBJECTIVES: To assess the construct validity and reliability of the Center for Epidemiologic Studies Depression (CES-D) scale in stroke patients, and to examine item functioning in depressed stroke patients compared to generalized depression. **METHODS:** Psychometric analyses were conducted on secondary data sources, including 101 patients 3, months post-stroke (of whom 32 were depressed), and 366 individuals with depression from the US general population. Presence of (potential) depression was based on a CES-D score ≥ 16 . Convergent validity of the CES-D scale in stroke patients was assessed with concurrently administered measures—the SF-36 mental health subscale (MH), and the Health Utilities Index Mark 2 and 3 single attribute utility score for emotion (HUI2-E, HUI3-E, respectively)—using Spearman's rank correlation coefficients (r). Internal consistency reliability was assessed using Cronbach's α . Rasch analysis was used to compare item hierarchies and to identify differential item functioning (DIF) between generalized depression and depression after stroke. **RESULTS:** The CES-D was strongly correlated with the MH subscale ($r = -0.81$), HUI2-E ($r = -0.71$) and HUI3-E ($r = -0.66$). Internal consistency reliability of the CES-D scale in stroke patients was satisfactory (Cronbach's $\alpha = 0.90$). Rasch analysis identified several items that were redundant or did not contribute to scale consistency. Item hierarchies separated into similar strata of difficulty for depressed stroke patients and generalized depression, with interpersonal disruption items (people unfriendly, feeling disliked) being the most difficult to endorse in both samples. DIF between generalized depression and stroke was identified on items relating to appetite, restless sleep, crying, and feeling disliked. **CON-**